PHASE SHIFT MASKING FOR COMPLEX PATTERNS
WITH PROXIMITY ADJUSTMENTS

ABSTRACT

5   **[0180]**   Techniques are provided for extending the use of phase shift techniques to implementation of masks used for complex layouts in the layers of integrated circuits, beyond selected critical dimension features. The method includes identifying features for which phase shifting can be applied, automatically mapping the phase shifting regions for implementation of such features, resolving phase conflicts which might occur according to a given design rule, and

10   application of assist features and proximity correction features. The method includes applying an adjustment to a phase shift mask pattern including a first and a second phase shift window, and a control chrome with a control width, and/or to a trim mask pattern having a trim shape with a trim width based upon one or both of a rule based correction and a model based correction to improve a match between a resulting exposure pattern and a target feature.

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